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PROPOSED AMENDED AND NEW CLAIMS (MARKED UP)

Below are presented in marked up format claims proposed to be amended or newly added.

1. (Currently Proposed Amendment) Apparatus comprising:
 - an image source to produce along a common optical axis at least first and second complementary images ~~spatial image fractions~~, ~~at least a significant portion of said first image fraction not spatially overlapping any portion of said second image fraction~~;
 - relay optics having a field of view associated with said images ~~image fractions~~; and
 - a redirecting unit coupled to said image source to direct at least said first and second images ~~image fractions~~ to at least first and second, respective, spatial regions of a reflecting unit, ~~thereby~~ to enable viewing at least said first and second images ~~image fractions~~ together as ~~being integrated into~~ a substantially spatially continuous integrated image.
5. (Cancelled)
6. (Currently Proposed Amendment) The apparatus of claim 1, wherein said images ~~fractions~~ are of different wavelength.
7. (Currently Proposed Amendment) The apparatus of claim 1, wherein said images ~~fractions~~ are of different polarization.
9. (Currently Proposed Amendment) The apparatus of claim 1, wherein said redirecting unit comprises a polarization selective ~~polarized~~ reflecting device.
10. (Currently Proposed Amendment) A helmet comprising:
 - a reflecting unit with operative connection to said helmet;
 - an image source to produce along a common optical axis at least first and second complementary images ~~spatial image fractions~~, ~~at least a significant portion of said first image fraction not spatially overlapping any portion of said second image fraction~~;

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relay optics having a field of view associated with said images ~~image~~
~~fractions~~; and

a redirecting unit coupled to said image source to direct at least said first and
second images ~~image-fractions~~ to at least first and second, respective, spatial regions
of said reflecting unit, ~~thereby~~ to enable viewing at least said first and second images
~~image-fractions~~ together as ~~being integrated into~~ a substantially spatially continuous
integrated image.

14. (Cancelled)

15. (Currently Proposed Amendment) The helmet of claim 10, wherein said images
~~fractions~~ are of different wavelength.

16. (Currently Proposed Amendment) The helmet of claim 10, wherein said images
~~fractions~~ are of different polarization.

18. (Currently Proposed Amendment) The helmet of claim 10, wherein said redirecting
unit comprises a polarization selective ~~polarized~~ reflecting device.

19. (Currently Proposed Amendment) A method for producing a wide field of view FOV,
said method comprising:

producing along a common optical axis at least first and second
complementary images ~~spatial image-fractions, at least a significant portion of said~~
~~first image-fraction not spatially overlapping any portion of said second image~~
~~fraction~~;

optically transferring said image fractions through relay optics; and

directing at least said first and second images ~~image-fractions~~ to at least first
and second, respective, spatial regions of a reflecting unit, ~~thereby~~ to enable viewing
at least said first and second images ~~image-fractions~~ together as ~~being integrated into~~ a
substantially spatially continuous integrated image.

24. (New) The apparatus of claim 1, wherein said redirecting unit comprises a wavelength
selective reflecting device.

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25. (New) The apparatus of claim 1 wherein said at least said first and second complementary images are at least partially overlapping.
26. (New) The apparatus of claim 1 wherein said image source is able to sequentially produce said first and second complementary images.
27. (New) The helmet of claim 10 wherein said at least said first and second complementary images are at least partially overlapping.
28. (New) The helmet of claim 10, wherein said redirecting unit comprises a wavelength selective reflecting device.
29. (New) The helmet of claim 10 wherein said image source is able to sequentially produce said at least first and second complementary images.
30. (New) The method of claim 19, wherein directing said images to said spatial regions of the reflecting unit comprises directing said images to said spatial regions of the reflecting unit based on polarization of said images.
31. (New) The method of claim 19, wherein directing said images to said spatial regions of the reflecting unit comprises directing said images to said spatial regions of the reflecting unit based on wavelength of said images.
32. (New) The method of claim 19 comprising sequentially producing said at least first and second complementary images.

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SUMMARY OF POINTS FOR DISCUSSION

Applicants respectfully submit this Proposed Amendment and accompanying remarks in connection with Applicants' request for an interview. The proposed Amendment and remarks are submitted for discussion purposes only and should not be relied upon for purposes of file history estoppel or otherwise.

Status of Claims

Claims 1-23 are pending in the application.

Amendments to claims 1, 6-7, 9-10, 15-16, and 18-19 are proposed.

New claims 24-32 are proposed.

Claims 5 and 14 are proposed to be cancelled.

It is respectfully submitted that no new matter has been added in the proposed amendments and new claims.

CLAIM OBJECTIONS

In the Office action, the Examiner objected to claims 1-23 because of informalities, including use of the phrases "a significant portion" and "substantially spatially continuous image" in claims 1, 10 and 19. The Examiner asserted that the terms were not clear.

With regard to the Examiner's objection to the word "significant", in light of the amendments to claims 1, 10 and 19, including the omission of the clause containing the word "significant", it is respectfully asserted that the Examiner's objection is moot. Applicants respectfully assert that the amendment does not change the scope of the claims and that the amendment has not been made for purposes of patentability.

With regard to the Examiner's objection to the word "substantially", Applicants respectfully point out in accordance with MPEP 2173.02 that when the Examiner is "satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness." (emphasis in original). In light of the remarks herein regarding patentability of the disclosed subject matter and the pending claims, it is respectfully asserted that the claims should be

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allowed. "Some latitude in the manner of expression and aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire." MPEP 2173.02.

Applicants assert that the word "substantially" when taken in the context of the entire disclosure and claims is definite and complies with the dictates of 35 U.S.C. § 112 because one of ordinary skill in the art would understand what is being claimed. MPEP 2173.05(b). In fact, the CAFC and its predecessor have repeatedly held that use of the term "substantially" does not render a claim indefinite. Andrew Corp. v. Gabriel Electronics, 847 F.2d 819 (Fed. Cir. 1988); In re Mattison, 509 F.2d 563 (CCPA 1975).

In view of the above, Applicants respectfully assert that the above claims are proper under 35 U.S.C. § 112 and request that the objections be withdrawn.

CLAIM REJECTIONS

35 U.S.C. § 112 Rejections

In the Office action, the Examiner rejected claims 6, 7, 9, 15, 16, and 18 under 35 U.S.C. § 112, first paragraph, due to non-compliance with the enablement requirement.

The Examiner pointed to two aspects of the invention as not enabled: (a) the redirector unit to redirect light based on wavelength or polarization and (b) the image source to generate images of different wavelength or polarization. Applicants traverse the rejection and respectfully state that every element of the claims is fully enabled by the disclosure such that one of ordinary skill in the art would be able to practice the invention.

First, the Examiner rejected the above claims on the grounds that the specification does not disclose how the redirecting unit is capable of "directing at least said first and second complementary images to a least first and second respective spatial regions of a reflecting unit." The Examiner's attention is respectfully directed to the exemplary embodiment of the invention depicted in Figures 4A and 4B and the accompanying explanatory text at pages 6-8.

As depicted in Figure 4A, redirector element 90 may be, for example, a controllable redirector, such as a mirror, to reflect the inbound image to the reflecting unit at two different angles. Thus, for example, in an time-integration embodiment of the device (e.g., where the

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image redirector receives different images at different times), when a first image 84 is accepted at the redirector 92, the controllable redirector 92 may be set to reflect the first image at a first angle along 84' to first section of the reflecting unit 15, and when a second image 82 is accepted, the controllable redirector may be set to reflect the second image at a second angle along 82' to second section of the reflecting unit 15.

As depicted in Figure 4B, redirector element 92 may be a device, for example a wedge with polarization-dependent reflective planes to reflect incoming images at different angles depending on the polarization of the image. Thus, for example, in a space-integration embodiment of the device (e.g., where the image redirector receives different images simultaneously), a first image 84 having first polarization S is accepted at the redirector 92, and is reflected at a first angle along 84' to a first section of the reflecting unit 15, a second image 82 having second polarization P is accepted at the redirector, and is reflected at a second angle along a 82' to a second section of reflecting unit 15.

Second, the Examiner rejected the above claims on the grounds that the specification does not disclose how the image source is capable of generating images of different wavelengths or of different polarization. The Examiner's attention is respectfully directed to the specification throughout, for example, at page 7, where it is stated that the image source "may be any type of display technology using P & S polarizers or LCD technology (such as from: Sony, Sharp, Kopin, MicroDisplay and others)." Moreover, it is known in the art to use a CRT to produce images having different colors (i.e., wavelengths) or an LCD display to produce an image of a certain polarization.

Based on the above, Applicants respectfully assert that claims 6, 7, 9, 15, and 18 are enabled based on the specification of the Application, and request that the Examiner's rejection of the above claims be withdrawn.

35 U.S.C. § 103 Rejections

Applicants believe the pending claims are patentable over the Morishima, Iba and Florence references cited by the Examiner and welcome the opportunity to discuss the rejections of the pending claims under 35 U.S.C. § 103.

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PROPOSED CLARIFYING AMENDMENTS

While such amendments are not required for patentability, Applicants propose certain amendments to the claims to clarify their scope. For example, claims 1, 10 and 19 are now clarified to recite producing the images "along a common optical axis".

Additional clarifying amendments are proposed to clarify the scope of the claims. For example, in claims 9 and 18, "controlled polarized reflection device" has been replaced with "polarization selective reflective device" for clarity. Also, in the claims, the terms "fractions of an image" has been replaced with "images" for clarity. These amendments add no new matter, and do not change the scope of the claims.

Respectfully submitted,

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